The Federal Laboratory Consortium – Its Benefits to the Department of Energy and Its National Laboratories

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FLC-DOE Success Story

High Solids Anaerobic Digestion (HSAD)

- DOE National Renewable Energy Lab (NREL) ORTA / FLC representative starts technology transfer process for promising technology
- Contact with Unisphere, Arlington, Virginia
- Three companies—Unisphere, Pinnacle Biotechnologies, Alpha-Gamma—form ORBIT to test and evaluate HSAD
- U.S. Army sponsors construction of demonstration plant for dual-use project
- Commercialized HSAD product converts food waste from defense installations and swine waste into energy

What is the Federal Laboratory Consortium for Technology Transfer?

Federal Laboratory Consortium for Technology Transfer

Organized in 1974 and formally chartered by the Federal Technology Transfer Act of 1986 to promote and strengthen technology transfer nationwide. Members include more than 700 major federal laboratories and centers, parent departments, and agencies

Its Mission

To add value to the federal agencies, laboratories, and their partners to accomplish the rapid integration of research and development resources within the mainstream of the U.S. economy

Its Vision

To actively promote the fullest application and use of federal research and development by providing an environment for successful technology transfer. The Consortium will be the recognized leader in maximizing collaborative research and the transfer of federal technologies to enhance the socioeconomic well-being of the nation in the global marketplace

Serving FLC Stakeholders/Customers

- Federal laboratories
- Federal agencies/departments
- Industry/large and small business
- Academia
- Congress
- State and local governments
- Professional trade organizations/individual members

All FLC Projects and Initiatives Support the 10 Statutory Mandates

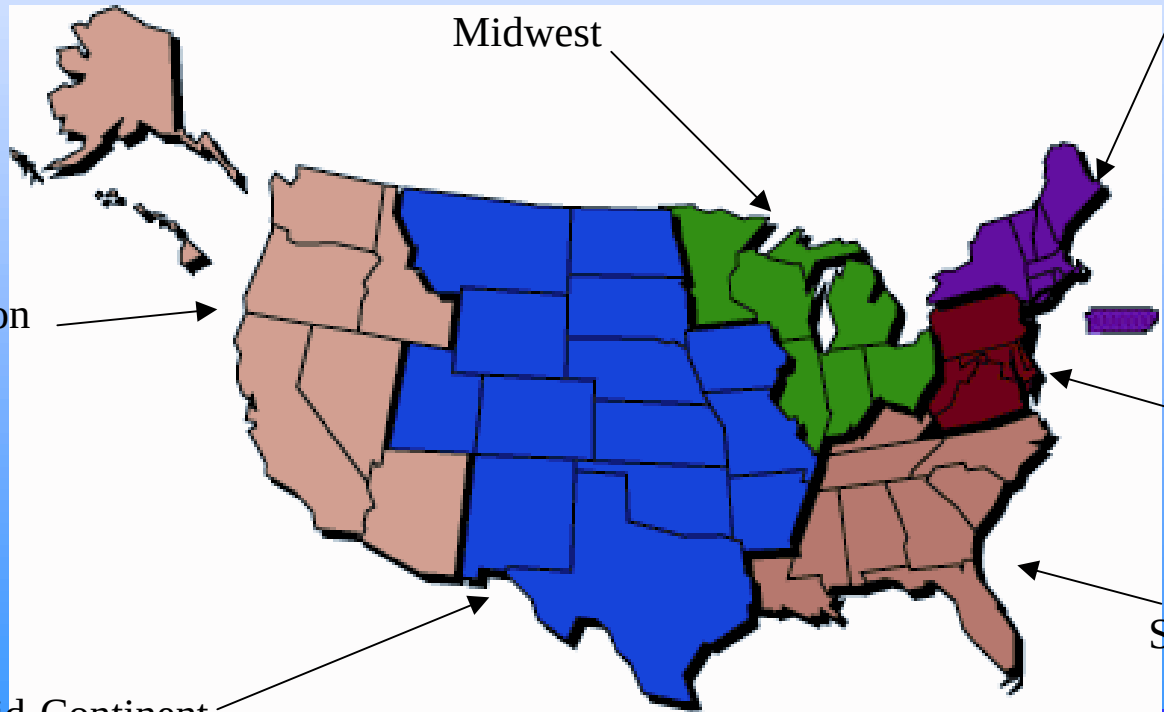
- Utilize the expertise and services of federal agencies for technology transfer
- Develop and administer techniques, training courses, and materials concerning technology transfer to increase the awareness of federal laboratory employees regarding the commercial potential of laboratory technology and innovations
- Furnish advice and assistance to federal agencies and laboratories for use in their technology transfer programs
- Provide a clearinghouse for requests for technical assistance from states and units of local governments, business, industrial development organizations, and not-for-profit organizations, including universities, federal agencies and laboratories, and other persons
- Facilitate communication and coordination between Offices of Research and Technology Applications of federal laboratories

All FLC Projects and Initiatives Support the 10 Statutory Mandates (Cont.)

- Assist federal laboratories in establishing programs by using technical volunteers to provide technical assistance
- Facilitate communication and cooperation between Offices of Research and Technology Applications of federal laboratories and regional, state, and local technology transfer organizations
- Assist colleges or universities, business, nonprofit organizations, state or local governments, or regional organizations to establish programs to stimulate research and to encourage technology transfer
- In each federal Laboratory Consortium region, seek advice from representatives of state and local governments, large and small businesses, universities, and other appropriate persons on the effectiveness of the program
- Facilitate the use of appropriate technology transfer mechanisms

FLC Regions

For easy access and nearby assistance, the FLC is divided into six U.S. regions, each of which has a Regional Coordinator, Deputy Regional Coordinator, and administrative support



Sample FLC Recent Regional Initiatives and Partnering

Mid-Continent Region

- Small area businesses referred to National Nuclear Security Administration's Kansas City Plant
- Arkansas company referred by University of Arkansas to Sandia National Labs

Southeast Region

- Assistive Technology CRADA: Naval Air Warfare Center Training Systems Division in conjunction with Rehabilitation Engineering Research Center for Augmentative and Alternative Communication at Duke University to explore military technologies for possible development of communication devices for disabled

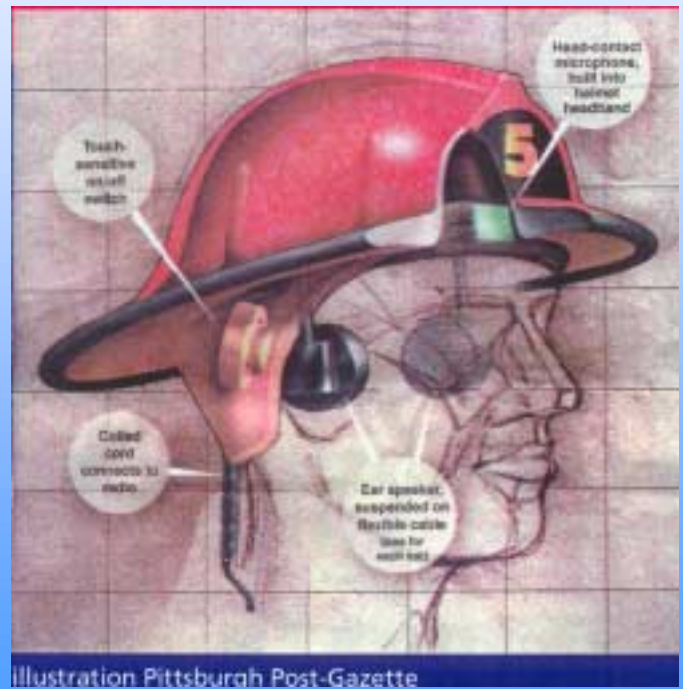
Sample FLC Recent National Initiatives

- Assistive Technology Initiative—to meet needs of disabled and elderly individuals
- Fire Fighting Task Force—to improve safety for future firefighters
- Utility Locating Technologies Initiative—to develop sensor technologies for locating/identifying underground utility lines (electricity, TV cable, water, gas, etc.)
- Successful Program Booklet—to demonstrate how federal agencies and labs work successfully with state and local governments

Fire Fighting Task Force

Safety/Protective Technologies for Firefighters

- Acoustic Transmitting System developed for U.S. Navy SEALs at Naval Coastal System Station¯ waterproof head contact microphone and speakers
- Personnel locator developed as night vision equipment at U.S. Army Night Vision Lab and Air Force Research Laboratory¯ assistance to see in smoky environment
- Radioear developed at National Institute for Occupational Safety and Health (NIOSH) and Radioear Corporation¯ bone conduction tactical headset to enable better hearing in noisy environment



DOE Industries of the Future Program (IOF)

- FLC Executive Board decision to pursue IOF—Fall 2001
- FLC compiles lab contact information for marketing IOF opportunities
- Additional discussion/explanation by Lisa Barnett, DOE Headquarters, at plenary presentation, FLC annual meeting, Little Rock, May 2002

FLC Member Benefits

Networking

- "Talk-shop" opportunities (annual / regional meetings)
- Opportunities at co-located meetings to meet members of:
  - Association of University Technology Managers (AUTM)
  - Small Business Innovative Research (SBIR) organizations
  - Technology Transfer Society (TTS)
  - Licensing Executives Society (LES)
  - Tech transfer colleagues from government / industry / academia
  - Technology Transfer Forum (TTF)⁻ international T2 colleagues
- Active online roundtables
  - 35 roundtables, 2 specially for DOE employees (e.g., regions, scientists / engineers, FLC committees, FLC Executive Board, etc.)

FLC Member Benefits (Cont.)

Technology Locator

- Free search service for partners; answers in labs to technology questions, problems
- Large database of technology resources (growing daily)
- Contact with FLC member labs nationwide and their $25 billion R&D
- Over 190 requests for technical assistance referred to DOE labs (since 1999)
- Contact: 856-667-7727 or go to <www.federallabs.org> and click on Laboratory Locator

FLC Member Benefits (Cont.)

Annual Awards for Excellence in Technology Transfer

- Prestigious annual awards event, recognized within federal and industrial communities
- Honorees from labs chosen for special creativity, initiative and achievement in technology transfer
- High visibility of innovative technologies (for industry, venture capitalists, etc.)
- 224 awards given to DOE technologies (since first awards in 1984)
- 10 DOE technologies received awards in 2002
- DOE Lab Directors recently honored as Directors of the Year include Dr. Paul Robinson, Sandia National Laboratories; Dr. William Madia, Pacific Northwest National Laboratory; Dr. Susan Wood, Savannah River Technology Center

FLC Member Benefits (Cont.)

FLC Web Site

<www.federallabs.org> is the gateway to:

- Inclusive, updated information on technology transfer
- Problem solutions and tech transfer resources
- Laboratory Locator
- Lists of licensable technologies and success stories in all subject areas
- Latest in legislation and policy
- Tech transfer training
- Newsletters and other T2-related publications
- Links to other T2-related organizations
- Profiles of federal labs
- Increased visibility / publicity for DOE labs / technologies

FLC Member Benefits (Cont.)

Federal Technology Transfer Legislation and Policy ("The Green Book") is:

- Newly updated, easier to read
- Current resource on latest legislation concerning tech transfer
- More useful, with new index
- Available upon request; free to members, $5 for non-FLC members (contact Sam Samuelian, ssamuelian@utrsmail.com or call 856-667-7660)

FLC Member Benefits (Cont.)

Training for Technology Transfer Specialists

- Annual Meeting—day-long beginning and advanced training
- FLC Education & Training Committee developing training material for comprehensive course based on needs surveys and open discussions
- Web Site—ultimate location for new T2 training courses

FLC Member Benefits (Cont.)

Trade Show Marketing of Lab Technologies

- FLC attends national trade shows (4-8/yr) and regional meetings to showcase available technologies/lab capabilities
- Labs/agencies/FLC will exhibit together in future for greater exposure
- Opportunities for technology displays and/or technology publicity in booth

FLC Member Benefits (Cont.)

Publicity in FLC Publications

- ***NewsLink* (Monthly Newsletter)**
  - News, activities, technologies from member labs and agencies
  - Audience of 6,500 in government, academia and industry
  - Different technology subject each month
    - Opportunities to showcase DOE technology programs and partnerships (lead article); several DOE national programs featured since 1999
    - Place to highlight licensable technologies from DOE labs
    - Chance to tout DOE technology transfer successes
    - Monthly issue available on web site in PDF format (or sign up for subscription)

Check the editorial calendar at <www.federallabs.org> (FLC Library/NewsLink); send ideas/articles/tech info to flcnews@utrs.com

FLC Member Benefits (Cont.)

Access to Experienced FLC National Advisors

Newly selected council of lab directors, government officials, university administrators, and corporate executives with diverse professional expertise and experience

- Entrepreneurial skill
- Fresh ideas on marketing / developing technologies
  - FLC Commercialization Assistance Teams (mentoring in T2 / business)
  - "World's Best Technology Expo" in September¯ sponsorship with National Association of Seed and Venture Funds (NASVF)

Additional Advantages in Working with the FLC

Benefits are often *intangible*:

- Assistance with meeting individual lab missions
- Help leveraging R&D; faster, cheaper working together
- Innovative approaches to partnering, technical development, commercialization
- Expanded use of technical facilities

Call for DOE Participation

- Talk with your FLC laboratory representative. Find out how the FLC can help you in your work. Send your technology and technical program information to the FLC for publicity
- Work with the FLC team
- Contact the FLC at <www.federallabs.org>; 856-667-7727